

P. Ruffey

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1645

RAW SEQUENCE LISTING

PATENT APPLICATION US/08/727,084

TECH CENTER 1600/2900

DATE: 10/30/98
TIME: 09:44:55

INPUT SET: S29524.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

PH 31

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SEQUENCE LISTING

1
2
3 (1) General Information:
4
5 (i) APPLICANT: Pulst, Stefan M
6
7 (ii) TITLE OF INVENTION: NUCLEIC ACID ENCODING SPINOCEREBELLAR
8 ATAXIA-2 AND PRODUCTS RELATED THERETO
9
10 (iii) NUMBER OF SEQUENCES: 19
11
12 (iv) CORRESPONDENCE ADDRESS:
13 (A) ADDRESSEE: Muetting, Raasch & Gebhardt, P.A.
14 (B) STREET: 119 North Fourth Street
15 (C) CITY: Minneapolis
16 (D) STATE: Minnesota
17 (E) COUNTRY: USA
18 (F) ZIP: 55401
19
20 (v) COMPUTER READABLE FORM:
21 (A) MEDIUM TYPE: Floppy disk
22 (B) COMPUTER: IBM PC compatible
23 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
24 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
25
26 (vi) CURRENT APPLICATION DATA:
27 (A) APPLICATION NUMBER: US 08/727,084
28 (B) FILING DATE: 08-OCT-1996
29 (C) CLASSIFICATION:
30
31 (viii) ATTORNEY/AGENT INFORMATION:
32 (A) NAME: Muetting, Ann M.
33 (B) REGISTRATION NUMBER: 33,977
34 (C) REFERENCE/DOCKET NUMBER: 232.00010101
35
36 (ix) TELECOMMUNICATION INFORMATION:
37 (A) TELEPHONE: 612/305-1220
38 (B) TELEFAX: 612/305-1228
39
40
41
42 (2) INFORMATION FOR SEQ ID NO:1:
43
44 (i) SEQUENCE CHARACTERISTICS:
45 (A) LENGTH: 516 base pairs
46 (B) TYPE: nucleic acid

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PATENT APPLICATION US/08/727,084BRECEIVED
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47 (C) STRANDEDNESS: both
48 (D) TOPOLOGY: both
49
50 (ii) MOLECULE TYPE: DNA (genomic)
51
52
53
54 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
55
56 TTGGTAGCAA CGGAAACGGC GCGGCGCGT TTCGGCCCCG CTCCCGGCGG CTCCTTGGTC 60
57
58 TCGGCGGGCC TCCCCGCCCC TCGTCGTCG TCCTTCTCCC CCTCGCCAGC CCGGGCGCCC 120
59
60 CTCCGGCCGC GCCAACCCGC GCCTCCCCGC TCGGCGCCCC TCGCTCCCCG CCGCGTTCCG 180
61
62 GCGTCTCCTT GCGCGCCCCG GCTCCCGGCT GTCCCCGCC GCGGTGCGAG CCGGTGTATG 240
63
64 GGCCCTCAC CATGTCGCTG AAGCCCCAGC AGCAGCAGCA GCAGCAGCAG CAACAGCAGC 300
65
66 AGCAGCAACA GCAGCAGCAG CAGCAGCAGC AGCCGCCGCC CGCGGCTGCC AATGTCCGCA 360
67
68 AGCCCGGCGG CAGCGGCCTT CTAGCGTCGC CCGCCGCCGC GCCTTCGCCG TCCTCGTCCT 420
69
70 CGGTCTCCTC GTCCTCGGCC ACGGCTCCCT CCTCGGTGGT CGCGGCGACC TCCGGCGGCG 480
71
72 GGAGGCCCCG CCTGGGCAGG TGGGTGTCGG CACCCC 516
73
74 (2) INFORMATION FOR SEQ ID NO:2:
75
76 (i) SEQUENCE CHARACTERISTICS:
77 (A) LENGTH: 4481 base pairs
78 (B) TYPE: nucleic acid
79 (C) STRANDEDNESS: both
80 (D) TOPOLOGY: both
81
82 (ii) MOLECULE TYPE: cDNA
83
84
85 (ix) FEATURE:
86 (A) NAME/KEY: CDS
87 (B) LOCATION: 163..4101
88
89
90 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
91
92 ACCCCCGAGA AAGCAACCCA GCGCGCCGCC CGCTCCTCAC GTGTCCCTCC CGGCCCCGGG 60
93
94 GCCACCTCAC GTTCTGCTTC CGTCTGACCC CTCCGACTTC CGGTAAAGAG TCCCTATCCG 120
95
96 CACCTCCGCT CCCACCCGGC GCCTCGGCGC GCCCGCCCTC CG ATG CGC TCA GCG 174
97 Met Arg Ser Ala
98
99

RAW SEQUENCE LISTING PATENT APPLICATION US/08/727,084B

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| | | |
|-----|-----------------------------------------------------------------|-----|
| 100 | GCC GCA GCT CCT CGG AGT CCC GCG GTG GCC ACC GAG TCT CGC CGC TTC | 222 |
| 101 | Ala Ala Ala Pro Arg Ser Pro Ala Val Ala Thr Glu Ser Arg Arg Phe | |
| 102 | 5 10 15 20 | |
| 103 | | |
| 104 | GCC GCA GCC AGG TGG CCC GGG TGG CGC TCG CTC CAG CGG CCG GCG CGG | 270 |
| 105 | Ala Ala Ala Arg Trp Pro Gly Trp Arg Ser Leu Gln Arg Pro Ala Arg | |
| 106 | 25 30 35 | |
| 107 | | |
| 108 | CGG AGC GGG CGG GGC GGC GGT GGC GCG GCC CCG GGA CCG TAT CCC TCC | 318 |
| 109 | Arg Ser Gly Arg Gly Gly Gly Gly Ala Ala Pro Gly Pro Tyr Pro Ser | |
| 110 | 40 45 50 | |
| 111 | | |
| 112 | GCC GCC CCT CCC CCG CCC GGC CCC GGC CCC CCT CCC TCC CGG CAG AGC | 366 |
| 113 | Ala Ala Pro Pro Pro Pro Gly Pro Gly Pro Pro Pro Ser Arg Gln Ser | |
| 114 | 55 60 65 | |
| 115 | | |
| 116 | TCG CCT CCC TCC GCC TCA GAC TGT TTT GGT AGC AAC GGC AAC GGC GGC | 414 |
| 117 | Ser Pro Pro Ser Ala Ser Asp Cys Phe Gly Ser Asn Gly Asn Gly Gly | |
| 118 | 70 75 80 | |
| 119 | | |
| 120 | GGC GCG TTT CGG CCC GGC TCC CGG CGG CTC CTT GGT CTC GGC GGG CCT | 462 |
| 121 | Gly Ala Phe Arg Pro Gly Ser Arg Arg Leu Leu Gly Leu Gly Gly Pro | |
| 122 | 85 90 95 100 | |
| 123 | | |
| 124 | CCC CGC CCC TTC GTC GTC GTC CTT CTC CCC CTC GCC AGC CCG GGC GCC | 510 |
| 125 | Pro Arg Pro Phe Val Val Val Leu Leu Pro Leu Ala Ser Pro Gly Ala | |
| 126 | 105 110 115 | |
| 127 | | |
| 128 | CCT CCG GCC GCG CCA ACC CGC GCC TCC CCG CTC GGC GCC CGT GCG TCC | 558 |
| 129 | Pro Pro Ala Ala Pro Thr Arg Ala Ser Pro Leu Gly Ala Arg Ala Ser | |
| 130 | 120 125 130 | |
| 131 | | |
| 132 | CCG CCG CGT TCC GGC GTC TCC TTG GCG CGC CCG GCT CCC GGC TGT CCC | 606 |
| 133 | Pro Pro Arg Ser Gly Val Ser Leu Ala Arg Pro Ala Pro Gly Cys Pro | |
| 134 | 135 140 145 | |
| 135 | | |
| 136 | CGC CCG GCG TGC GAG CCG GTG TAT GGG CCC CTC ACC ATG TCG CTG AAG | 654 |
| 137 | Arg Pro Ala Cys Glu Pro Val Tyr Gly Pro Leu Thr Met Ser Leu Lys | |
| 138 | 150 155 160 | |
| 139 | | |
| 140 | CCC CAG CAG CAG CAG CAG CAG CAG CAG CAA CAG CAG CAG CAG CAA CAG | 702 |
| 141 | Pro Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln | |
| 142 | 165 170 175 180 | |
| 143 | | |
| 144 | CAG CAG CAG CAG CAG CAG CAG CCG CCG CCC GCG GCT GCC AAT GTC CGC | 750 |
| 145 | Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro Ala Ala Ala Asn Val Arg | |
| 146 | 185 190 195 | |
| 147 | | |
| 148 | AAG CCC GGC GGC AGC GGC CTT CTA GCG TCG CCC GCC GCC GCG CCT TCG | 798 |
| 149 | Lys Pro Gly Gly Ser Gly Leu Leu Ala Ser Pro Ala Ala Ala Pro Ser | |
| 150 | 200 205 210 | |
| 151 | | |
| 152 | CCG TCC TCG TCC TCG GTC TCC TCG TCC TCG GCC ACG GCT CCC TCC TCG | 846 |

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 153 | Pro | Ser | Ser | Ser | Ser | Val | Ser | Ser | Ser | Ser | Ala | Thr | Ala | Pro | Ser | Ser | |
| 154 | | | 215 | | | | | 220 | | | | | 225 | | | | |
| 155 | | | | | | | | | | | | | | | | | |
| 156 | GTG | GTC | GCG | GCG | ACC | TCC | GGC | GGC | GGG | AGG | CCC | GGC | CTG | GGC | AGA | GGT | 894 |
| 157 | Val | Val | Ala | Ala | Thr | Ser | Gly | Gly | Gly | Arg | Pro | Gly | Leu | Gly | Arg | Gly | |
| 158 | | 230 | | | | | 235 | | | | | 240 | | | | | |
| 159 | | | | | | | | | | | | | | | | | |
| 160 | CGA | AAC | AGT | AAC | AAA | GGA | CTG | CCT | CAG | TCT | ACG | ATT | TCT | TTT | GAT | GGA | 942 |
| 161 | Arg | Asn | Ser | Asn | Lys | Gly | Leu | Pro | Gln | Ser | Thr | Ile | Ser | Phe | Asp | Gly | |
| 162 | 245 | | | | | 250 | | | | | 255 | | | | 260 | | |
| 163 | | | | | | | | | | | | | | | | | |
| 164 | ATC | TAT | GCA | AAT | ATG | AGG | ATG | GTT | CAT | ATA | CTT | ACA | TCA | GTT | GTT | GGC | 990 |
| 165 | Ile | Tyr | Ala | Asn | Met | Arg | Met | Val | His | Ile | Leu | Thr | Ser | Val | Val | Gly | |
| 166 | | | | 265 | | | | | 270 | | | | | | 275 | | |
| 167 | | | | | | | | | | | | | | | | | |
| 168 | TCC | AAA | TGT | GAA | GTA | CAA | GTG | AAA | AAT | GGA | GGT | ATA | TAT | GAA | GGA | GTT | 1038 |
| 169 | Ser | Lys | Cys | Glu | Val | Gln | Val | Lys | Asn | Gly | Gly | Ile | Tyr | Glu | Gly | Val | |
| 170 | | | | 280 | | | | 285 | | | | | 290 | | | | |
| 171 | | | | | | | | | | | | | | | | | |
| 172 | TTT | AAA | ACT | TAC | AGT | CCG | AAG | TGT | GAT | TTG | GTA | CTT | GAT | GCC | GCA | CAT | 1086 |
| 173 | Phe | Lys | Thr | Tyr | Ser | Pro | Lys | Cys | Asp | Leu | Val | Leu | Asp | Ala | Ala | His | |
| 174 | | | 295 | | | | | 300 | | | | | 305 | | | | |
| 175 | | | | | | | | | | | | | | | | | |
| 176 | GAG | AAA | AGT | ACA | GAA | TCC | AGT | TCG | GGG | CCG | AAA | CGT | GAA | GAA | ATA | ATG | 1134 |
| 177 | Glu | Lys | Ser | Thr | Glu | Ser | Ser | Ser | Gly | Pro | Lys | Arg | Glu | Glu | Ile | Met | |
| 178 | | 310 | | | | | 315 | | | | | 320 | | | | | |
| 179 | | | | | | | | | | | | | | | | | |
| 180 | GAG | AGT | ATT | TTG | TTC | AAA | TGT | TCA | GAC | TTT | GTT | GTG | GTA | CAG | TTT | AAA | 1182 |
| 181 | Glu | Ser | Ile | Leu | Phe | Lys | Cys | Ser | Asp | Phe | Val | Val | Val | Gln | Phe | Lys | |
| 182 | 325 | | | | | 330 | | | | 335 | | | | | 340 | | |
| 183 | | | | | | | | | | | | | | | | | |
| 184 | GAT | ATG | GAC | TCC | AGT | TAT | GCA | AAA | AGA | GAT | GCT | TTT | ACT | GAC | TCT | GCT | 1230 |
| 185 | Asp | Met | Asp | Ser | Ser | Tyr | Ala | Lys | Arg | Asp | Ala | Phe | Thr | Asp | Ser | Ala | |
| 186 | | | | 345 | | | | | 350 | | | | | 355 | | | |
| 187 | | | | | | | | | | | | | | | | | |
| 188 | ATC | AGT | GCT | AAA | GTG | AAT | GGC | GAA | CAC | AAA | GAG | AAG | GAC | CTG | GAG | CCC | 1278 |
| 189 | Ile | Ser | Ala | Lys | Val | Asn | Gly | Glu | His | Lys | Glu | Lys | Asp | Leu | Glu | Pro | |
| 190 | | | 360 | | | | | 365 | | | | | 370 | | | | |
| 191 | | | | | | | | | | | | | | | | | |
| 192 | TGG | GAT | GCA | GGT | GAA | CTC | ACA | GCC | AAT | GAG | GAA | CTT | GAG | GCT | TTG | GAA | 1326 |
| 193 | Trp | Asp | Ala | Gly | Glu | Leu | Thr | Ala | Asn | Glu | Glu | Leu | Glu | Ala | Leu | Glu | |
| 194 | | | 375 | | | | | 380 | | | | | 385 | | | | |
| 195 | | | | | | | | | | | | | | | | | |
| 196 | AAT | GAC | GTA | TCT | AAT | GGA | TGG | GAT | CCC | AAT | GAT | ATG | TTT | CGA | TAT | AAT | 1374 |
| 197 | Asn | Asp | Val | Ser | Asn | Gly | Trp | Asp | Pro | Asn | Asp | Met | Phe | Arg | Tyr | Asn | |
| 198 | | 390 | | | | | 395 | | | | | 400 | | | | | |
| 199 | | | | | | | | | | | | | | | | | |
| 200 | GAA | GAA | AAT | TAT | GGT | GTA | GTG | TCT | ACG | TAT | GAT | AGC | AGT | TTA | TCT | TCG | 1422 |
| 201 | Glu | Glu | Asn | Tyr | Gly | Val | Val | Ser | Thr | Tyr | Asp | Ser | Ser | Leu | Ser | Ser | |
| 202 | 405 | | | | | 410 | | | | 415 | | | | | 420 | | |
| 203 | | | | | | | | | | | | | | | | | |
| 204 | TAT | ACA | GTG | CCC | TTA | GAA | AGA | GAT | AAC | TCA | GAA | GAA | TTT | TTA | AAA | CGG | 1470 |
| 205 | Tyr | Thr | Val | Pro | Leu | Glu | Arg | Asp | Asn | Ser | Glu | Glu | Phe | Leu | Lys | Arg | |

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| | 206 | | 425 | | 430 | | 435 | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 207 | | | | | | | | |
| 208 | GAA | GCA | AGG | GCA | AAC | CAG | TTA | GCA |
| 209 | Glu | Ala | Arg | Ala | Asn | Gln | Leu | Ala |
| 210 | | | | 440 | | | | 445 |
| 211 | | | | | | | | 450 |
| 212 | TAC | AAA | GCT | CGA | GTG | GCC | CTG | GAA |
| 213 | Tyr | Lys | Ala | Arg | Val | Ala | Leu | Glu |
| 214 | | | 455 | | | | 460 | 465 |
| 215 | | | | | | | | |
| 216 | AAA | TAC | ACA | GCA | GTT | CAG | AGA | AAT |
| 217 | Lys | Tyr | Thr | Ala | Val | Gln | Arg | Asn |
| 218 | | | 470 | | | | 475 | 480 |
| 219 | | | | | | | | |
| 220 | ATA | AAC | ACT | AGG | GAA | AAT | AAA | TAT |
| 221 | Ile | Asn | Thr | Arg | Glu | Asn | Lys | Tyr |
| 222 | 485 | | | | | 490 | | 495 |
| 223 | | | | | | | | 500 |
| 224 | GAA | GTC | ATA | TCC | TGG | GGA | AGT | GGG |
| 225 | Glu | Val | Ile | Ser | Trp | Gly | Ser | Gly |
| 226 | | | | | 505 | | | 510 |
| 227 | | | | | | | | 515 |
| 228 | CAG | CCT | GGA | TCG | GGC | TCC | ATG | CCA |
| 229 | Gln | Pro | Gly | Ser | Gly | Ser | Met | Pro |
| 230 | | | | 520 | | | | 525 |
| 231 | | | | | | | | 530 |
| 232 | GAT | TTC | AAC | CCG | AAT | TCT | GGT | TCA |
| 233 | Asp | Phe | Asn | Pro | Asn | Ser | Gly | Ser |
| 234 | | | 535 | | | | 540 | 545 |
| 235 | | | | | | | | |
| 236 | GTT | CCC | TGG | CCA | TCG | CCT | TGC | CCA |
| 237 | Val | Pro | Trp | Pro | Ser | Pro | Cys | Pro |
| 238 | | | 550 | | | | 555 | 560 |
| 239 | | | | | | | | |
| 240 | CGC | TAC | CAG | TCA | GGT | CCC | AAC | TCT |
| 241 | Arg | Tyr | Gln | Ser | Gly | Pro | Asn | Ser |
| 242 | 565 | | | | | 570 | | 575 |
| 243 | | | | | | | | 580 |
| 244 | ACA | CGG | CCG | CCC | TCC | AGG | CCC | CCC |
| 245 | Thr | Arg | Pro | Pro | Ser | Arg | Pro | Pro |
| 246 | | | | | 585 | | | 590 |
| 247 | | | | | | | | 595 |
| 248 | CAC | CCC | TCT | GCT | CAT | GGT | TCT | CCA |
| 249 | His | Pro | Ser | Ala | His | Gly | Ser | Pro |
| 250 | | | | 600 | | | | 605 |
| 251 | | | | | | | | 610 |
| 252 | CGC | ATG | TCT | TCA | GAA | GGG | CCT | CCA |
| 253 | Arg | Met | Ser | Ser | Glu | Gly | Pro | Pro |
| 254 | | | 615 | | | | 620 | 625 |
| 255 | | | | | | | | |
| 256 | CAT | CCT | CGA | AAT | CAC | AGA | GTT | TCT |
| 257 | His | Pro | Arg | Asn | His | Arg | Val | Ser |
| 258 | | | 630 | | | | 635 | 640 |

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Original Text